

Effective idea mining technique based on modeling lexical semantic

ABSTRACT

Automatic extraction of hidden ideas from texts is extremely important that would help decision makers to identify and retrieve significant information, which possibly used to solve current problems. However, adequate measurements need to be utilized to verify candidate ideas. In existing idea mining measurement research, a well-balanced measurement is used to measure the distribution of the number of known and unknown terms from the idea text and the context text to find useful ideas within a text pattern. The existing models do not take into consideration the relationships between these terms which may share one or more semantic component. This leads to a limited characterization of potential ideas. Therefore, this paper proposes an improvement to the idea mining model by considering the semantic relationships among terms based on synonyms by using the WordNet. The effectiveness of the proposed model is evaluated on a dataset consisting of 50 randomly selected abstracts of scientific articles. Based on the results, the proposed model showed an improvement in the performance of the idea mining model where an increase of 28.4% is achieved.

Keyword: Idea mining; Information retrieval; WordNet; Text pattern; Text mining